Basic YANG Model for Steering Client Services To Server Tunnels

draft-bryskin-teas-service-tunnel-steering-model-02

Igor Bryskin (Huawei Technologies)
Xufeng Liu (Volta Networks)
Vishnu Pavan Beeram (Juniper Networks)
Tarek Saad (Juniper Networks)
Rationale:

- No good universal way to bind tunnels to their clients/services
- Service-to-tunnel mapping is service specific
- Tunnel utilization efficiency and scalability issues
- Service to tunnel re-mapping difficulties
Tunnel pool

• Identified by network unique ID
• Comprised of tunnels with similar properties (e.g. fast tunnels)
• Managed by service orchestrator via configuring tunnel types, IDs and references to appropriate tunnel data stores for pool tunnel components.
• Services are mapped to tunnel pools via pool IDs
• Provides via state information services that are currently mapped onto the tunnel pool
Advantages of service to tunnel pool mapping approach

- Scalability and efficiency of network resource utilization

- Automation, transparency and elasticity

- Service to tunnel mapping is decoupled from service definition, tunnels could be shared among multiple services of different types
Progress since the previous version

• Removed tunnel/service redundant attributes accessible via respective tunnel/service data stores (based on discussions during and after IETF103)

• Editorial changes
Next steps

• Soliciting more discussions, comments and contributions
• Should we consider steering services not just to e2e tunnels, but also to abstract topologies (e.g. SF-aware topologies), network slices, etc.?